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FURTHER CONTRIBUTIONS TO THE PROBLEM OF ATLANTIS

The discussion in the January *Review*, by Professor Schuchert and Dr. Schuller, of Termier's paper on Atlantis, the "lost" continent, has called forth the following two papers by Mr. Edwin Swift Balch, Councilor of this Society, and Mr. William H. Babcock, a private collector of Washington, D. C., who has recently made an extensive investigation of a related topic from the standpoint of early cartography.¹ The present papers furnish additional material on this vexed problem. The one suggests an identification of locality different from that favored by geologists, which considers the sunken land-mass whose remnants are the Canary and Cape Verde Islands to be the "lost" continent of the ancient myth; while the other discusses the improbability of any connection between the names Atlantis and Antilles.

ATLANTIS OR MINOAN CRETE

By EDWIN SWIFT BALCH

The lost Atlantis of Plato has been for many years if not centuries a subject of discussion and controversy. It is usually assumed to have been located in the Atlantic Ocean somewhere off the coast of the Sahara Desert. This solution of the puzzle, however, has never been definitely accepted, and the matter is constantly being reargued afresh. Professor Termier's interesting paper on Atlantis, recently reviewed in these pages, brings forward anew the theory of the location of Atlantis in the Atlantic Ocean. In view of this, it seems well to say a few words about the theory—briefly mentioned by Mr. James Baikie in his book "The Sea Kings of Crete"² and said by him to have been broached by an anonymous writer in an English newspaper a year or two earlier—that the lost Atlantis of Plato is really Minoan Crete.

The theory that Atlantis is Minoan Crete could only have been started since 1900, for up to the end of the nineteenth century Turkish suzerainty over this island of the Ægean prevented all archeological work. But with the first sods upturned by the archeologists's spade great results were obtained. Gournia and Phaistos and Knossos with its fine palace were unearthed, and before long the world realized that in Crete there had once been a totally forgotten civilization which extended over not less than two

¹ The So-called Mythical Islands of the Atlantic in Mediæval Maps, *Scottish Geogr. Mag.*, Vol. 31, 1915, pp. 261-269, 315-320, 360-371, 411-422, 531-541; Vol. 32, 1916, pp. 73-79, 131-140, 418-428, 477-484.

² A. and C. Black, London, 1910; reference on pp. 256-259 (see review in *Bull. Amer. Geogr. Soc.*, Vol. 44, 1912, pp. 382-383).

thousand years and which came to a sudden end in about the year 1200 B. C. Moreover, during most of its existence the Minoan kingdom was in touch with Egypt; the last Egyptian relics found in Crete, according to Flinders Petrie, date from about the year 1200 B. C., thus apparently coinciding with the downfall of Minoan civilization.

If one looks at Plato's statements about Atlantis, which are republished at some length in Termier's article, it soon becomes apparent that they are a very confused jumble of ideas. This is probably due to several causes. One is that Plato did not hear the story of the Egyptian priest himself, but only heard it at second or rather at third hand. The story as told by the priest himself to Solon was probably confused enough, and when it reached Plato it was still more confused. Then again the story related to an event which happened at the least not less than six hundred years before. Historical records in Plato's time were not kept with anything like the accuracy with which they are kept now, yet just consider what we should know of the invasion of England by William the Conqueror if, from his day to this, there had been absolutely no intercourse between England and America.

One of the facts which it seems can be gathered with some certainty from Plato's narrative is that Atlantis was a large island. Of its surroundings he says: "From this island you could easily pass to other islands, and from them to the entire continent which surrounds the interior sea. What there is on this side of the strait of which we are speaking resembles a vast gateway . . . and the land which surrounds it is a real continent." That is to say, there were other islands near Atlantis and these were in an interior sea near to a continent. These geographical data apply perfectly to Crete and the Ægean Sea.

Another fact which may be extracted with some certainty from Plato's narrative is that Atlantis was a kingdom of some extent and power. Its kings "had under their dominion the entire island as well as several other islands and some parts of the continent. Besides on the hither side of the strait they were still reigning over Libya as far as Egypt and over Europe as far as the Tyrrhenian." These statements may perfectly well apply to Minoan Crete. Crete may easily have ruled over many of the islands of the Ægean, it may well have ruled over the Peloponnesus at the time of Mycenæ and Tiryns, it may well have ruled over the North African coast of the Cyrenaica. This is certainly far more probable than that a people living in the Atlantic Ocean should have ruled over Morocco, Algeria, Tripoli, and the Cyrenaica as far as the valley of the Nile. And if they had they would certainly have left some relics of their occupation, but no relics of any such people have been found in North Africa.

Plato not only tells us that Atlantis was a large island, but he gives a short account of it which Termier condenses or translates as follows: One of Plato's characters, Critias, "describes the cradle of the Atlantean

race; a plain located near the sea opening in the central part of the island and the most fertile of plains; about it a circle of mountains stretching to the sea, a circle open at the center and protecting the plain from the icy blasts of the north; in these superb mountains, numerous villages, rich and populous; in the plain, a magnificent city, the palaces and temples of which are constructed from stones of three colors—white, black, and red—drawn from the very bosom of the island; here and there mines yielding all the minerals useful to man; finally the shores of the island cut perpendicularly and commanding from above the tumultuous sea.” Now this is an accurate description of Crete and Knossos, and as far as they are concerned there is nothing fanciful about it.

According to Plato the destruction of Atlantis was the joint work of Egypt and Athens. The old Egyptian priest told Solon “The records inform us of the destruction by Athens of a singularly powerful army . . . All this power was once upon a time united in order by a single blow to subjugate our country, your own, and all the peoples living on the hither side of the strait. It was then that the strength and courage of Athens blazed forth.” Apparently Egypt and Athens together put an end to some kingdom threatening them both. And certainly this points to Minoan Crete, whose central location might well have threatened the Egyptian and Athenian allies and whose civilization we know was wiped out absolutely about 1200 B. C.

Is there any recollection of Crete and its destruction in Greek records? It seems as if there were in the shape of the legendary Minotaur, the terrible monster who devoured so many Greek youths and maidens. But, literally translated, Minotaur means the bull of Minos, and we can see in the museums of our chief cities copies of the frescoes from the Palace at Knossos representing the slaughter of Greek prisoners in the Minoan bull fights. And the Minotaur, Greek mythology tells us, was destroyed by Theseus, which would seem to be a reminiscence of the destruction of Minoan Crete by Athenians and Egyptians.

The passage in Plato which has led most strongly to the belief that Atlantis was an Atlantic island, a belief seemingly to some extent justified before the archeological discovery of Minoan Crete, is the following: “The records inform us of the destruction by Athens of a singularly powerful army, an army which came from the Atlantic Ocean and which had the effrontery to invade Europe and Asia; for this sea was then navigable, and beyond the strait which you call the Pillars of Hercules there was an island larger than Libya and even Asia.” This is surely a most confused muddle of names and ideas, representing hopelessly confused notions of geography.

Consider the statement that “there was an island larger than Libya and even Asia.” The size assigned to Atlantis shows definitely the lack of accuracy of the whole passage. Did the Egyptians or the Greeks of

the year 600 B. C. have any knowledge of the Atlantic Ocean? There is no record of anything of the kind, beyond the one in Herodotus saying that before his time some Phœnician navigators had sailed around the African continent. Is there any warrant for believing that the name "Pillars of Hercules" originally applied to the Rock of Tarik and the mountain masses of Morocco? We should not assume Egyptian and early Greek notions of geography to have been anything like our own. They could not have been. Does not the most probable explanation of Plato's statement seem to be that by the Atlantic Ocean or a navigable sea he meant the Mediterranean and by the Pillars of Hercules some passage between high rocks in the Ægean, rather than what is meant by our present nomenclature?

It is especially in the passages in Plato which are hard to interpret that we must remember that Plato is not telling us something at first hand. Plato tells us that he learned from Solon that an Egyptian priest had told Solon a historical tale which the priest had read in the sacred books. We have thus not the original story as told in the sacred books, but a verbal version of it transmitted verbally through three minds before reaching us. Exactly what was in the sacred books we shall probably never know, but as far as the passage in Plato is concerned which has caused so much speculation—"an army which came from the Atlantic Ocean"—it seems quite possible that the name "Atlantic Ocean" was not in the sacred books at all.

Another passage in Plato is also hard to interpret. "Later with great earthquakes and inundations, in a single day and one fatal night, all who had been warriors against you were swallowed up. The island of Atlantis disappeared beneath the sea. Since that time the sea in those quarters has become unnavigable; vessels cannot pass there because of the sands which extend over the site of the buried isle." "The sea has become unnavigable." What sea? Certainly not the Atlantic Ocean, nor the Mediterranean either! "Vessels cannot pass there" implies commerce on the part of Egypt. But did Egypt ever have any commerce in the Atlantic? Certainly there is no record of anything of the kind. Does it not seem probable that Plato's remarks are a garbled report of the extermination by Egyptians and Greeks of the Minoan Cretans, after which commerce with Crete stopped? At any rate, this explanation would seem to interpret to some extent this perhaps most confused of all the passages in Plato, a passage whose original form in the sacred books was very probably quite different.

The geological evidences advanced of the existence of a sunken continent or island in the Atlantic may be quite accurate. Geologists, however, seem very much in the dark about the time at which such an Atlantic island may have become submerged. They are uncertain as to whether it took place in the Eocene, the Miocene, or the Pliocene. Now supposing such

a submergence occurred even only as late as the Pliocene, what would it mean in regard to Atlantis? Our present, or Recent, short geological period was preceded by the Pleistocene, which was preceded by the Pliocene. The length of the Pleistocene is variously estimated, but a conservative estimate is about 500,000 years. This would place the submergence of the land in the Atlantic, if it occurred in the Pliocene, more than 500,000 years ago. Now can any one seriously maintain that any of the Egyptians, where Dynastic and Predynastic remains can hardly date back over 10,000 years, could have a tradition of an occurrence in the Atlantic dating back more than half a million years?

It is, of course, very probable that there were early men living in the late Pliocene. The famous Piltdown skull, about which so much pother has been raised of late, is considered by many competent archeologists to date from Pliocene times. Piltdown man was also sufficiently different from modern man to have been assigned to a separate class and to have been named after his discoverer *Eoanthropus Dawsoni*. The implements found in connection with the Piltdown skull are of the roughest chipped stone type, eoliths. Now, supposing that there were any Piltdown men on the sunken lands in the Atlantic, could any one pretend to believe that they were capable of building a city and palaces of white, black, and red building stones?

The theory which has been so long and so frequently the subject of controversy, namely, that Plato's Atlantis was in the Atlantic, seems untenable in the light of modern science. The theory that Plato's Atlantis was Minoan Crete, on the contrary, seems to stand up very well before recent archeological discoveries. At any rate it deserves to be more widely known, for it certainly seems to meet fairly completely the facts which the old Egyptian priest was trying to tell Solon and Solon to tell Plato of the destruction of what seems to have been the then already nearly forgotten civilization of Minoan Crete.

ATLANTIS AND ANTILLIA

By WILLIAM H. BABCOCK

In his discussion of Termier's paper in the January *Review* Dr. Schuller charges with *petitio principii* the French geologist's announcement that he awaits "the final answer" to the problem of Atlantis from anthropology and oceanography; also Dr. Hrdlicka's conclusion, from very considerable and persuasive evidence, that the American Indians came from Asia. The ancient and well-worn phrase seems a curious misfit in both instances. Both also are likely to define for a long time—the latter permanently—the general attitude of informed and thinking men.